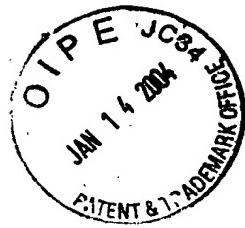




# FIG. 1

TGFb+MMP+ifn b Sequence

10	20	30	40	50	60
1234567890	1234567890	1234567890	1234567890	1234567890	1234567890
ATGCCGCCCT	CCGGGCTGCG	GCTGCTGCCG	CTGCTGCTAC	CGCTGCTGTG	GCTACTGGTG
Met Pro Pro S	er Gly Leu Ar	g Leu Leu Pro	Leu Leu Leu P	ro Leu Leu Tr	p Leu Leu Val
CTGACGCCCTG	GCCCCGCCGGC	CGCGGGACTA	TCCACCTGCA	AGACTATCGA	CATGGAGCTG
Leu Thr Pro G	ly Pro Pro Al	a Ala Gly Leu	Ser Thr Cys L	y s Thr Ile As	p Met Glu Leu
GTGAAGCGGA	AGCGCATCGA	GGCCATCCGC	GGCCAGATCC	TGTCCAAGCT	GCGGCTCGCC
Val Lys Arg L	y s Arg Ile Gl	u Ala Ile Arg	Gly Gln Ile L	eu Ser Lys Le	u Arg Leu Ala
AGCCCCCCCAGA	GCCAGGGGGA	GGTGCCGCC	GGCCCGCTGC	CCGAGGCCGT	GCTCGCCCTG
Ser Pro Pro S	er Gln Gly Gl	u Val Pro Pro	Gly Pro Leu P	ro Glu Ala Va	l Leu Ala Leu
TACAACAGCA	CCCGCGACCG	GGTGGCCGGG	GAGAGTGCAG	AACCGGAGCC	CGAGCCTGAG
Tyr Asn Ser T	hr Arg Asp Ar	g Val Ala Gly	Glu Ser Ala G	lu Pro Glu Pr	o Glu Pro Glu
GCCGACTACT	ACGCCAAGGA	GGTCACCCGC	GTGCTAATGG	TGGAAACCCA	CAACGAAATC
Ala Asp Tyr T	yr Ala Lys Gl	u Val Thr Arg	Val Leu Met V	al Glu Thr Hi	s Asn Glu Ile
TATGACAAGT	TCAAGCAGAG	TACACACAGC	ATATATATGT	TCTTCAACAC	ATCAGAGCTC
Tyr Asp Lys P	he Lys Gln Se	r Thr His Ser	Ile Tyr Met P	he Phe Asn Th	r Ser Glu Leu
CGAGAACCGG	TACCTGAACC	CGTGTGCTC	TCCCAGGCAG	AGCTGCGTCT	GCTGAGGAGG
Arg Glu Ala V	al Pro Glu Pr	o Val Leu Leu	Ser Arg Ala G	lu Leu Arg Le	u Leu Arg Arg
CTCAAGTTAA	AAAGTGGAGCA	GCACGTGGAG	CTGTACCAGA	AATACAGCAA	CAATT CCTGG
Leu Lys Leu L	y s Val Glu Gl	n His Val Glu	Leu Tyr Gln L	y s Tyr Ser As	n Asn Ser Trp
CGATAACCTCA	GCAACCGGCT	GCTGGCACCC	AGCGACTCGC	CAGAGTGGTT	ATCTTTGAT
Arg Tyr Leu S	er Asn Arg Le	u Leu Ala Pro	Ser Asp Ser P	ro Glu Trp Le	u Ser Phe Asp
GTCACCGGAG	TTGTGCGGCA	GTGGTTGAGC	CGTGGAGGGG	AAATTGAGGG	CTTCGCCTT
Val Thr Gly V	al Val Arg Gl	n Trp Leu Ser	Arg Gly Gly G	lu Ile Glu Gl	y Phe Arg Leu
AGCGCCCACT	GCTCCTGTGA	CAGCAGGGAT	AACACACTGC	AAAGTGGACAT	CAACGGGTT
Ser Ala His C	y s Ser Cys As	p Ser Arg Asp	Asn Thr Leu G	ln Val Asp II	e Asn Gly Phe
ACTACCGGCC	GCCGAGGTGA	CCTGGCCACC	ATT CATGGCA	TGA ACCGGCC	TTT CCTGCTT
Thr Thr Gly A	rg Arg Gly As	p Leu Ala Thr	Ile His Gly M	et Asn Arg Pr	o Phe Leu Leu
CTCATGGCCA	CCCCGCTGGA	GAGGGCCCAG	CATCTGC AAA	GCGAATT CGG	GGAGGCCGA
Leu Met Ala T	hr Pro Leu Gl	u Arg Ala Gln	His Leu Gln S	er Glu Phe Gl	y Gly Gly Gly
TCCCCGCTCG	GGCTTGGGC	GGGAGGGGGC	TCA GCGGCCG	CAATCA ACTA	TAAGCAGCTC
Ser Pro Leu G	ly Leu Trp Al	a Gly Gly Gly	Ser Ala Ala A	la Ile Asn Ty	r Lys Gln Leu
CAGCTCCAAG	AAAGGACGAA	CATT CGGAAA	TGTCAGGAGC	TCCTGGAGCA	GCTGAATGGA
Gln Leu Gln G	lu Arg Thr As	n Ile Arg Lys	Cys Gln Glu L	eu Leu Glu Gl	n Leu Asn Gly

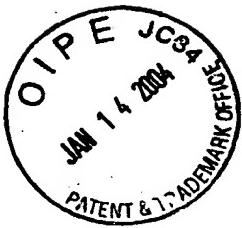


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Appl. No. 09/756,283; Filed: January 9, 2001  
Dkt. No. 0623.1000000/LBB/PAJ; Group Art Unit: 1646  
Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

AAGATCAACC	TCACCTACAG	GGCGGACTTC	AAGATCCCTA	TGGAGATGAC	GGAGAAAGATG	1020
LysIleAsnL	euThrTyrAr	gAlaAspPhe	LysIleProM	etGluMetTh	rGluLysMet	
CAGAACAGAGTT	ACACTGCCTT	TGCCATCCAA	GAGATGCTCC	AGAATGTCTT	TCTTGTCTTC	1080
GlnLysSerT	yrThrAlaPh	eAlaIleGln	GluMetLeuG	InAsnValPh	eLeuValPhe	
AGAAACAAATT	TCTCCAGCAC	TGGGTGGAAT	GAGACTATTG	TTGTACGTCT	CCTGGATGAA	1140
ArgAsnAsnP	heSerSerTh	rGlyTrpAsn	GluThrIleV	alValArgLe	uLeuAspGlu	
CTCCACCAGC	AGACAGTGTT	TCTGAAGACA	GTACTAGAGG	AAAAGCAAGA	GGAAAGATTTG	1200
LeuHisGlnG	InThrValPh	eLeuLysThr	ValLeuGluG	luLysGlnGl	uGluArgLeu	
ACGTGGGAGA	TGTCCTCAAC	TGCTCTCCAC	TTGAAGAGCT	ATTACTGGAG	GGTGCAAAGG	1260
ThrTrpGluM	etSerSerTh	rAlaLeuHis	LeuLysSerT	yrTyrTrpAr	gValGlnArg	
TACCTTAAAC	TCATGAAGTA	CAACAGCTAC	GCCTGGATGG	TGGTCCGAGC	AGAGATCTTC	1320
TyrLeuLysL	euMetLysTy	rAsnSerTyr	AlaTrpMetV	alValArgAl	aGluIlePhe	
AGGAACCTTC	TCATCATTG	AAGACTTACC	AGAAACCTTC	AAAACGTATC	TAGACC	1376
ArgAsnPheL	euIleIleAr	gArgLeuThr	ArgAsnPheG	InAsn***Se	rArg	
				uga		

FIG. 1 CONT'D



# FIG. 2

## ifn+MMP+TGF<sub>b</sub> Sequence

10	20	30	40	50	60	
1234567890	1234567890	1234567890	1234567890	1234567890	1234567890	1234567890
ATGAACAAACA	GGTGGATCCT	CCACGCTGCG	TTCCTGCTGT	GCTTCTCCAC	CACAGCCCTG	60
MetAsnAsnA	rgTrpIleLe	uHisAlaAla	PheLeuLeuC	ysPheSerTh	rThrAlaLeu	
TCCATCAACT	ATAAGCAGCT	CCAGCTCCAA	GAAAGGACGA	ACATTGGAA	ATGTCAGGAG	120
SerIleAsnT	yrLysGlnLe	uGlnLeuGln	GluArgThrA	snIleArgLy	sCysGlnGlu	
CTCCTGGAGC	AGCTGAATGG	AAAGATCAAC	CTCACCTACA	GGGC GGACTT	CAAGATCCCT	180
LeuLeuGluG	lnLeuAsnGl	yLysIleAsn	LeuThrTyrA	rgAlaAspPh	eLysIlePro	
ATGGAGATGA	CGGAGAAGAT	GCAGAAGAGT	TACACTGCCT	TTGCCATCCA	AGAGATGCTC	240
MetGluMetT	hrGluLysMe	tGlnLysSer	TyrThrAlaP	heAlaIleGl	nGluMetLeu	
CAGAACATGTCT	TTCTTGCTCT	CAGAAACAAAT	TTCTCCAGCA	CTGGGTGGAA	TGAGACTATT	300
GlnAsnValP	heLeuValPh	eArgAsnAsn	PheSerSerT	hrGlyTrpAs	nGluThrIle	
GTTGTACGTC	TCCTGGATGA	ACTCCACCAG	CAGACAGTGT	TTCTGAAGAC	AGTACTAGAG	360
ValValArgL	euLeuAspGl	uLeuHisGln	GlnThrValP	heLeuLysTh	rValLeuGlu	
GAAAAGCAAG	AGGAAAGATT	GACGTGGGAG	ATGTCCTCAA	CTGCTCTCCA	CTTGAAGAGC	420
GluLysGlnG	luGluArgLe	uThrTrpGlu	MetSerSerT	hrAlaLeuHi	SleuLysSer	
TATTACTGGA	GGGTGCAAAG	GTACCTTAAA	CTCATGAAGT	ACAACAGCTA	CGCCTGGATG	480
TyrTyrTrpA	rgValGlnAr	gTyrLeuLys	LeuMetLysT	yrAsnSerTy	rAlaTrpMet	
GTGGTCCGAG	CAGAGATCTT	CAGGAACCTT	CTCATCATTC	GAAGACTTAC	CAGAAACTTC	540
ValValArgA	laGluIlePh	eArgAsnPhe	LeuIleIleA	rgArgLeuTh	rArgAsnPhe	
CAAAACGAAT	TG	GGGGGAGG	CGGATCCCCG	CTCGGGCTTT	GGGC GGGAGG	600
GlnAsnGluP	heGlyGlyGl	yGlySerPro	LeuGlyLeuT	rpAlaGlyGl	yGlySerAla	
GCCGCACATAT	CCACCTGCAA	GACTATCGAC	ATGGAGCTGG	TGAAGCGGAA	GCGCATCGAG	660
AlaAlaLeuS	erThrCysLy	sThrIleAsp	MetGluLeuV	alLysArgLy	sArgIleGlu	
GCCATCCGCG	GCCAGATCCT	GTCCAAGCTG	CGGCTCGCCA	GCCCCCGAG	CCAGGGGGAG	720
AlaIleArgG	lyGlnIleLe	uSerLysLeu	ArgLeuSlaS	erProProSe	rGlnGlyGlu	
GTGCCGCCG	GCCCCTGCGC	CGAGGCCGTG	CTCGCCCTGT	ACAACAGCAC	CCGCGACCAG	780
ValProProG	lyProLeuPr	OGluAlaVal	LeuAlaLeuT	yrASnSerTh	rArgAspArg	
GTGGCCGGGG	AGAGTGCAGA	ACCGGAGCCC	GAGCCTGAGG	CCGACTACTA	CGCCAAGGAG	840
ValAlaGlyG	luSerAlaGl	uProGluPro	GluProGluA	laAspTyrTy	rAlaLysGlu	
GTCACCCGCG	TGCTAATGGT	GGAAACCCAC	AACGAAATCT	ATGACAAGTT	CAAGCAGAGT	900
ValThrArgV	alLeuMetVa	lGluThrHis	AsnGluIleT	yrAspLysPh	eLysGlnSer	
ACACACAGCA	TATATATGTT	CTTCAACACA	TCAGAGCTCC	GAGAAGCGGT	ACCTGAACCC	960
ThrHisSerI	leTyrMetPh	ePheAsnThr	SerGluLeuA	rgGluAlaVa	lProGluPro	

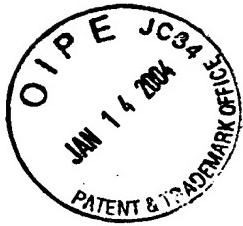


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Appl. No. 09/756,283; Filed: January 9, 2001  
Dkt. No. 0623.1000000/LBB/PAJ; Group Art Unit: 1646  
Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

GTGTTGCTCT CCCGGGCACA GCTGCGTCTG CTGAGGGAGGC TCAAGTTAAA AGTGGAGCAG ValLeuLeuS erArgAlaG1 uLeuArgLeu LeuArgArgL euLysLeuLy sValGluGln	1020
CACGTGGAGC TGTACCAGAA ATACAGCAAC AATTCCCTGGC GATACTCTAG CAACCGGCTG HisValGluL euTyrGlnLy sTyrSerAsn AsnSerTrPA rgTyrLeuSe rAsnArgLeu	1080
CTGGCACCCA GCGACTCGCC AGAGTGGTTA TCTTTGATG TCACCGGAGT TGTGCGGCAG LeuAlaProS erAspSerPr oGluTrpLeu SerPheAspV alThrGlyVa lValArgGln	1140
TGGTTGAGCC GTGGAGGGGA AATTGAGGGC TTTGCCCTTA GCGCCCCTG CTCCTGTGAC TrpLeuSerA rgGlyGlyG1 uIlleGluGly PheArgLeuS erAlaHisCy sSerCysAsp	1200
AGCAGGGATA ACACACTGCA AGTGGACATC AACGGGTTCA CTACCGGCCG CCGAGGTGAC SerArgAspA snThrLeuG1 nValAspIle AsnGlyPheT hrThrGlyAr GArgGlyAsp	1260
CTGGCCACCA TTCATGGCAT GAACCGGCCT TTCTGCTTC TCATGGCCAC CCCGCTGGAG LeuAlaThrI leHisGlyMe tAsnArgPro PheLeuLeuL euMetAlaTh rProLeuGlu	1320
AGGGCCCCAGC ATCTGCAAAG GtgaTCTAGA CC ArgAlaGlnH isLeuGlnSe r...SerArg	1352

FIG. 2 CONT'D



# FIG. 3

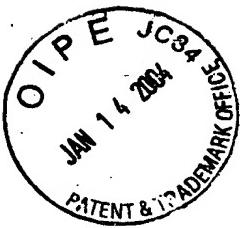
Hu TGF- $\beta$ 1	MPPSGLRLPLLLPLLIWLLV-LTPGPPAAGLSTCKTIOMEILVKRKRIEAIRGQIILSKLRLASPPSQGE-VP-PGP	40	
Hu TGF- $\beta$ 2	MHYCVLSAFLILH LVTVAL-----SLSTCSTLDMOQFMRKRIEAIRGQIILSKLKLTSPP--EDYPEPEE		
Hu TGF- $\beta$ 3	MKMHQLQRALVVLALLHFATVSL-----SLSTCTTDFGHIKKKRVEAIRGQIILSKLRLTSPP--EPTV-MTH		
Ck TGF- $\beta$ 4	-----		
Fg TGF- $\beta$ 5	MEV-----LWMMLLVLVV-LHSSLANSLSLSTCKAVADMEEVRKRRRIEAIRGQIILSKLKD KIPDVDS-EK-MTV		
	+	+	+
	+	+	+++*
	+	+	+++++
	+	+	+++
	+	+	+
			100
			120
Hu TGF- $\beta$ 1	LPEAVLALYNSTRDRVAGESAEEPE-PEP-----EADYYAKEVIRVLMV----ETHNEIYDKFKQSTHSIYMF	20	
Hu TGF- $\beta$ 2	VPPEVISIYNNSTRDLL--QEKA SR-RAAACERERSOEEYYAKEVYKIDNMPPFEPS-ENAI PPTFYR PY-FRIVRE		
Hu TGF- $\beta$ 3	VPYQVLALYNSTRELL--EEHGER-KEEGCTQENTSEYYAYAKEIHKFDMIQGLAE-HNELAVCPKGIT-SKVFRF		
Ck TGF- $\beta$ 4	-----M--DPM SIGPK--SCG-----GSPW-RPP-GTAPWSIG-SR--RA		
Fg TGF- $\beta$ 5	PSEAI F-LYNSTLE-VIREKATRE-EEEHVGHDONIQDY YAKQVYRF----ESITELEDHEFKF K-----F		
	+++	+++	+++
			140
			160
Hu TGF- $\beta$ 1	NTSEL-----RE-AVPEPVLLS-RAELRLRLKL-----KV-EQHVELYQ-----KY SNN SWRYLSNRILLAPS DSPE	180	
Hu TGF- $\beta$ 2	DVSA-----MEKNASNLY-KAEFRVFRLQNPK-ARVPEQRIELYQILKSRDLISPTQRYIDS KVVVKTRAEGE		
Hu TGF- $\beta$ 3	NVSS-----VEKNRNTNLF-RAEF RVLRVPNPS-SKRNEQRRIELFQILRP-DEHIAKQRYIGGKNLPTRGTA E		
Ck TGF- $\beta$ 4	TASSSCSTS RVRVAEVGGRAILHRAELRH LRQKAADSAGTEQRLELYQGYG-----NASWRYLHGRSVRATADDE		
Fg TGF- $\beta$ 5	NASHV-----RENVGMN-SLLH-HAELR MYK-KQT D--KNMOQRMELEW--KYQENGTHS RYLESKYITPVTDQE		
	+	++	++
	+	++	++
	+	++	++



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Appl. No. 09/756,283; Filed: January 9, 2001  
Dkt. No. 0623.100000/LBB/PAJ; Group Art Unit: 1648  
Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

FIG. 3 CONT'D



## FIG. 4

Protein	Sequence	Reference
MMP-1/MMP-8		
Human type I collagen ( $\alpha_1$ )	Ala-Pro-Gln-Gly <sub>775</sub> ~Ile <sub>776</sub> -Ala-Gly-Gln	80
Human type I collagen ( $\alpha_2$ )	Gly-Pro-Gln-Gly <sub>775</sub> ~Leu <sub>776</sub> -Leu-Gly-Ala	80
Human type II collagen	Gly-Pro-Gln-Gly <sub>775</sub> ~Leu <sub>776</sub> -Ala-Gly-Gln	80
Human type III collagen	Gly-Pro-Leu-Gly <sub>775</sub> ~Ile <sub>776</sub> -Ala-Gly-Ile	80
Human $\alpha_2$ -macroglobulin	Gly-Pro-Glu-Gly <sub>679</sub> ~Leu <sub>680</sub> -Arg-Val-Gly	84
Rat $\alpha_2$ -macroglobulin	Ala-Ala-Tyr-His <sub>681</sub> ~Leu <sub>682</sub> -Val-Ser-Gin	84
Rat $\alpha_2$ -macroglobulin	Met-Asp-Ala-Phe <sub>691</sub> ~Leu <sub>692</sub> -Glu-Ser-Ser	84
Rat $\alpha_1$ -macroglobulin	Glu-Pro-Gln-Ala <sub>683</sub> ~Leu <sub>684</sub> -Ala-Met-Ser	84
Rat $\alpha_1$ -macroglobulin	Gln-Ala-Leu-Ala <sub>685</sub> ~Met <sub>686</sub> -Ser-Ala-Ile	84
Chicken ovostatin	Pro-Ser-Tyr-Phe <sub>673</sub> ~Leu <sub>674</sub> -Asn-Ala-Gly	79
Human pregnancy zone protein	Tyr-Glu-Ala-Gly <sub>685</sub> ~Leu <sub>686</sub> -Gly-Val-Val	84
Human pregnancy zone protein	Ala-Gly-Leu-Gly <sub>687</sub> ~Val <sub>688</sub> -Val-Glu-Arg	84
Human pregnancy zone protein	Ala-Gly-Leu-Gly <sub>757</sub> ~Ile <sub>758</sub> -Ser-Ser-Thr	84
$\alpha_1$ -protease inhibitor	Gly-Ala-Met-Phe <sub>352</sub> ~Leu <sub>353</sub> -Glu-Ala-Ile	85
Human aggrecan	Ile-Pro-Glu-Asn <sub>341</sub> ~Phe <sub>342</sub> -Phe-Gly-Val	86
Human aggrecan	Thr-Glu-Gly-Glu <sub>373</sub> ~Ala <sub>374</sub> -Arg-Gly-Ser	86
Human cartilage link	Arg-Ala-Ile-His <sub>16</sub> ~Ile <sub>17</sub> -Gln-Ala-Glu	87
Human insulin-like growth factor binding protein-3	Leu-Arg-Ala-Tyr <sub>99</sub> ~Leu <sub>100</sub> -Leu-Pro-Ala	88
MMP-2		
Guinea pig $\alpha_1$ (I) gelatin	Gly-Ala-Hyp-Gly <sub>547</sub> ~Leu <sub>548</sub> -Glx-Gly-His	24
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Gln-Gly <sub>190</sub> ~Val <sub>191</sub> -Arg-Gly-Glu	30
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Ala-Gly <sub>277</sub> ~Val <sub>278</sub> -Gln-Gly-Pro	30
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Ser-Gly <sub>301</sub> ~Leu <sub>302</sub> -Hyp-Gly-Pro	30
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Ala-Gly <sub>331</sub> ~Glu <sub>332</sub> -Arg-Gly-Ser	30
Rat $\alpha_1$ (I) gelatin	Gly-Ala-Lys-Gly <sub>361</sub> ~Leu <sub>362</sub> -Thr-Gly-Ser	30
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Ala-Gly <sub>382</sub> ~Gln <sub>383</sub> -Asp-Gly-Pro	30
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Ala-Gly <sub>634</sub> ~Phe <sub>635</sub> -Ala-Gly-Pro	30
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Ile-Gly <sub>676</sub> ~Asn <sub>677</sub> -Val-Gly-Ala	30
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Hyl-Gly <sub>685</sub> ~Ser <sub>686</sub> -Arg-Gly-Ala	30
Bovine type 1 collagen ( $\alpha_1$ )	Gly-Pro-Gln-Gly <sub>775</sub> ~Ile <sub>776</sub> -Ala-Gly-Gln	22
Bovine type 1 collagen ( $\alpha_2$ )	Gly-Pro-Gln-Gly <sub>775</sub> ~Leu <sub>776</sub> -Leu-Gly-Ala	22
Human aggrecan	Ile-Pro-Glu-Asn <sub>341</sub> ~Phe <sub>342</sub> -Phe-Gly-Val	89
Human galectin-3	Pro-Pro-Gly-Ala <sub>62</sub> ~Tyr <sub>63</sub> -His-Gly-Ala	90
Human cartilage link	Arg-Ala-Ile-His <sub>16</sub> ~Ile <sub>17</sub> -Gln-Ala-Glu	87
Human cartilage link	Gly-Pro-His-Leu <sub>25</sub> ~Leu <sub>26</sub> -Val-Glu-Ala	87
Human insulin-like growth factor binding protein-3	Leu-Arg-Ala-Tyr <sub>99</sub> ~Leu <sub>100</sub> -Leu-Pro-Ala	88



## MMP-3

Human  $\alpha_2$ -macroglobulin  
 Human  $\alpha_2$ -macroglobulin  
 Human  $\alpha_1$ -antichymotrypsin  
 $\alpha_1$ -protease inhibitor  
 Antithrombin III  
 Chicken ovostatin  
 Human aggrecan  
 Substance P  
 Human ProMMP-1  
 Human ProMMP-3  
 Human ProMMP-3  
 Human ProMMP-8  
 Human ProMMP-9  
 Human ProMMP-9  
 Human fibronectin  
 Human insulin-like growth factor binding protein-3

Bovine  $\alpha 1$ (II) collagen, N-telopeptide  
 Bovine  $\alpha 1$ (II) collagen, N-telopeptide  
 Bovine  $\alpha 1$ (IX) collagen, NC2  
 Bovine  $\alpha 2$ (IX) collagen, NC2  
 Bovine  $\alpha 3$ (IX) collagen, NC2  
 Bovine  $\alpha 1$ (XI) collagen, N-telopeptide  
 Human cartilage link  
 Bovine insulin, B chain  
 Bovine insulin, B chain

## MMP-7

Human aggrecan  
 Human cartilage link  
 Human prourokinase

## MMP-9

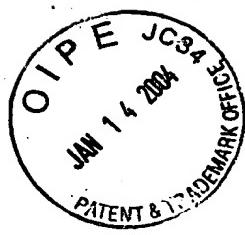
Human type V collagen ( $\alpha 1$ )  
 Human type V collagen ( $\alpha 2$ )  
 Human type XI collagen ( $\alpha 1$ )  
 Human aggrecan  
 Human galectin-3  
 Human cartilage link

## MMP-10

Human cartilage link  
 Human cartilage link

Gly-Pro-Glu-Gly <sub>679</sub> ~Leu <sub>680</sub> -Arg-Val-Gly	79
Arg-Val-Gly-Phe <sub>684</sub> ~Tyr <sub>685</sub> -Glu-Ser-Asp	79
Leu-Leu-Ser-Ala <sub>360</sub> ~Leu <sub>361</sub> -Val-Glu-Thr	91
Glu-Ala-Ile-Pro <sub>357</sub> ~Met <sub>358</sub> -Ser-Ile-Pro	91
Ile-Ala-Gly-Arg <sub>385</sub> ~Ser <sub>386</sub> -Leu-Asn-Pro	91
Leu-Asn-Ala-Gly <sub>677</sub> ~Phe <sub>678</sub> -Thr-Ala-Ser	79, 92
Ile-Pro-Glu-Asn <sub>341</sub> ~Phe <sub>342</sub> -Phe-Gly-Val	93
Lys-Pro-Gln-Gln <sub>6</sub> ~Phe <sub>7</sub> -Phe-Gly-Leu	37
Asp-Val-Ala-Gln <sub>80</sub> ~Phe <sub>81</sub> -Val-Leu-Thr	43
Asp-Thr-Leu-Glu <sub>68</sub> ~Val <sub>69</sub> -Met-Arg-Lys	94
Asp-Val-Gly-His <sub>82</sub> ~Phe <sub>83</sub> -Arg-Thr-Phe	94
Asp-Ser-Gly-Gly <sub>78</sub> ~Phe <sub>79</sub> -Met-Leu-Thr	95
Arg-Val-Ala-Glu <sub>40</sub> ~Met <sub>41</sub> -Arg-Gly-Glu	48
Asp-Leu-Gly-Arg <sub>87</sub> ~Phe <sub>88</sub> -Gln-Thr-Phe	48
Pro-Phe-Ser-Pro <sub>689</sub> ~Leu <sub>690</sub> -Val-Ala-Thr	21
Leu-Arg-Ala-Tyr <sub>99</sub> ~Leu <sub>100</sub> -Leu-Pro-Ala	88
Ala-Pro-Gly-Asn <sub>109</sub> ~Ala <sub>110</sub> -Ser-Glu-Ser	88
Phe-Ser-Ser-Glu <sub>176</sub> ~Ser <sub>177</sub> -Lys-Arg-Glu	88
Ala-Gly-Gly-Ala <sub>115</sub> ~Gln <sub>116</sub> -Met-Gly-Val	96
Gln-Met-Gly-Val <sub>119</sub> ~Met <sub>120</sub> -Gln-Gly-Pro	96
Met-Ala-Ala-Ser-Leu-Lys-Arg-Pro	96
~Ala-Lys-Arg-Glu	96
~Leu-Arg-Lys-Pro	96
Gln-Ala-Gln-Ala~Ile-Leu-Gln-Gln	96
Arg-Ala-Ile-His <sub>16</sub> ~Ile <sub>17</sub> -Gln-Ala-Glu	87
Leu-Val-Glu-Ala <sub>14</sub> ~Leu <sub>15</sub> -Tyr-Leu-Val	97
Glu-Ala-Leu-Tyr <sub>16</sub> ~Leu <sub>17</sub> -Val-Cys-Gly	21, 97
Ile-Pro-Glu-Asn <sub>341</sub> ~Phe <sub>342</sub> -Phe-Gly-Val	89
Gly-Pro-His-Leu <sub>25</sub> ~Leu <sub>26</sub> -Val-Glu-Ala	87
Pro-Pro-Glu <sub>143</sub> ~Leu <sub>144</sub> -Lys-Phe-Gln	98
Gly-Pro-Pro-Gly <sub>439</sub> ~Val <sub>440</sub> -Val-Gly-Pro	99
Gly-Pro-Pro-Gly <sub>445</sub> ~Leu <sub>446</sub> -Arg-Gly-Glu	99
Gly-Pro-Gly-Gly <sub>439</sub> ~Val <sub>440</sub> -Val-Gly-Pro	99
Ile-Pro-Glu-Asn <sub>341</sub> ~Phe <sub>342</sub> -Phe-Gly-Val	89
Pro-Pro-Gly-Ala <sub>62</sub> ~Tyr <sub>63</sub> -His-Gly-Ala	90
Arg-Ala-Ile-His <sub>16</sub> ~Ile <sub>17</sub> -Gln-Ala-Glu	87
Arg-Ala-Ile-His <sub>16</sub> ~Ile <sub>17</sub> -Gln-Ala-Glu	87
Gly-Pro-His-Leu <sub>25</sub> ~Leu <sub>26</sub> -Val-Glu-Ala	87

FIG. 4 CONT'D



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Appl. No. 09/756,283; Filed: January 9, 2001  
Dkt. No. 0623.1000000/LBB/PAJ; Group Art Unit: 1646  
Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

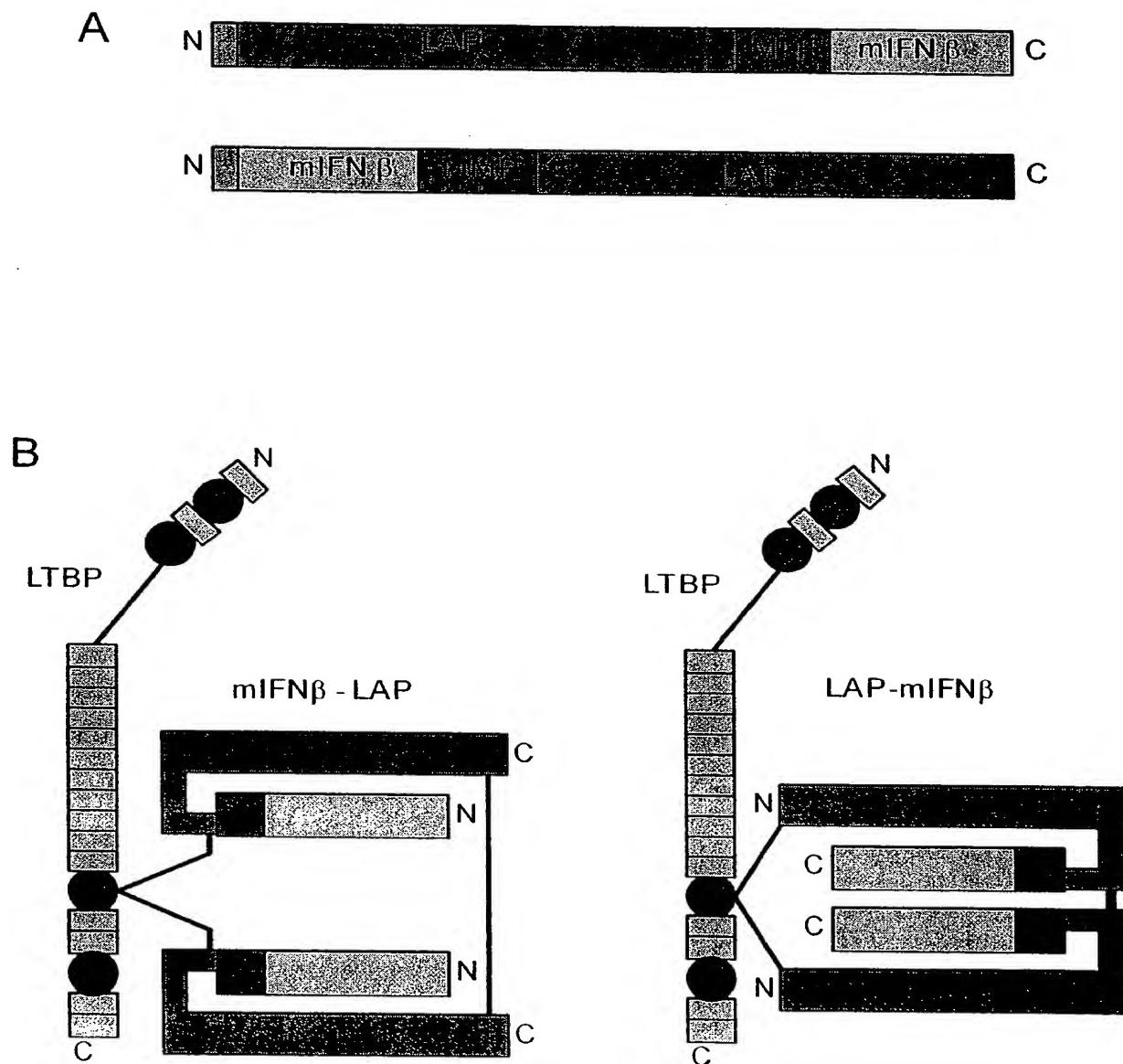
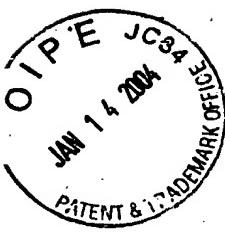


FIG. 5



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Dkt. No. 0623.1000000/LBB/PAJ; Group Art Unit: 1646  
Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

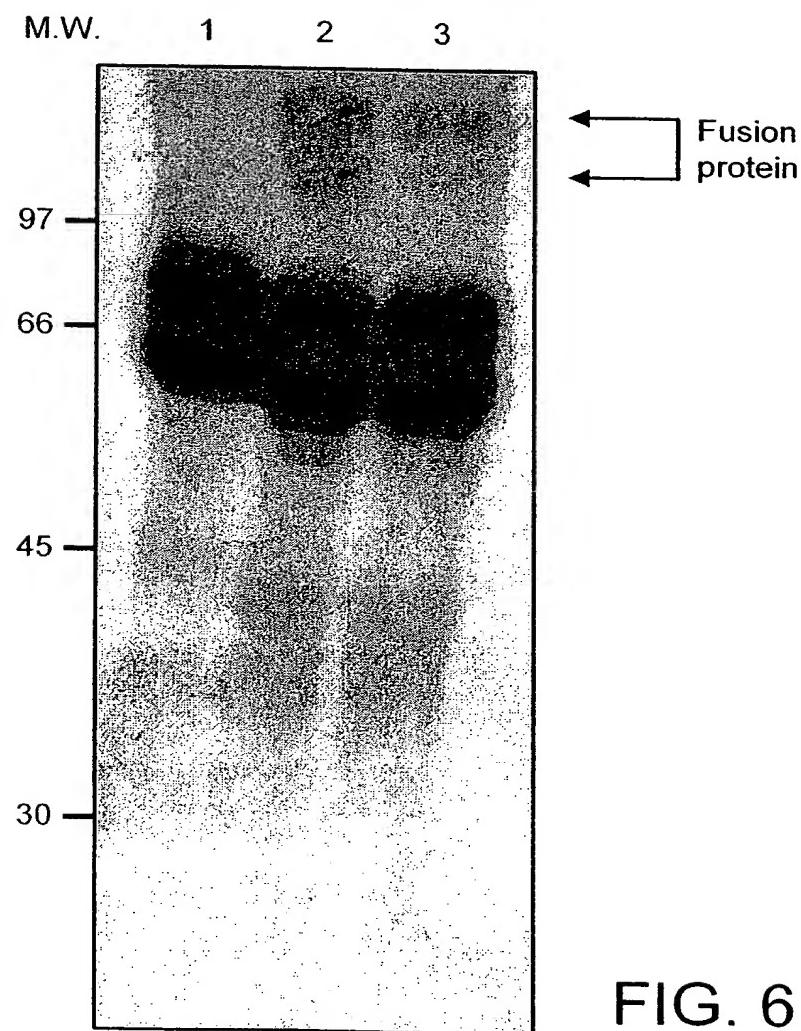
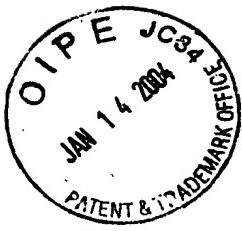


FIG. 6



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Appl. No. 09/756,283; Filed: January 9, 2001  
Dkt. No. 0623.100000/LBB/PAJ; Group Art Unit: 1646  
Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

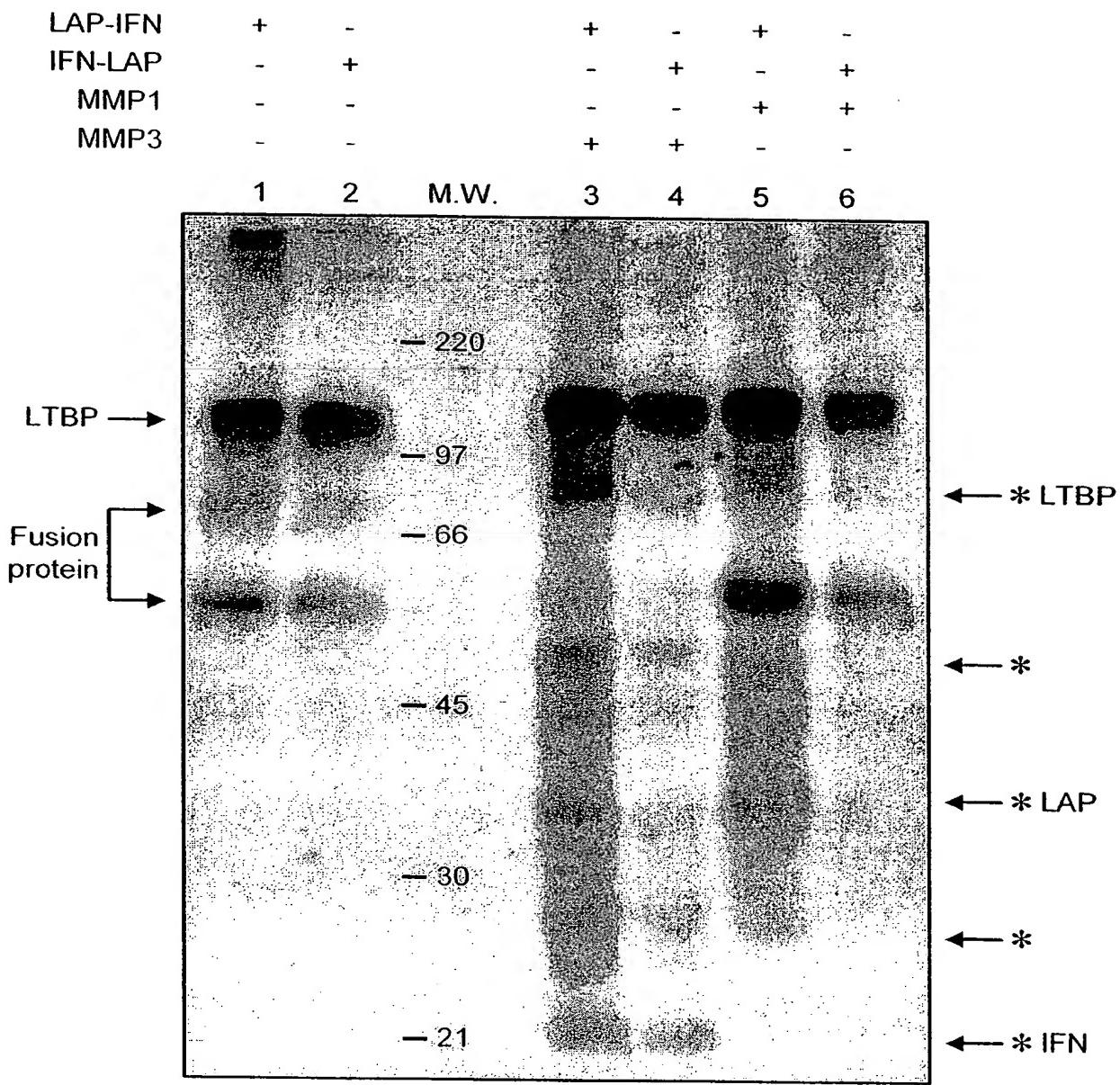
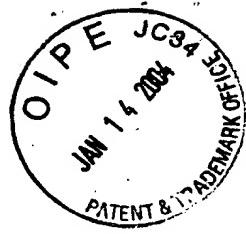


FIG. 7



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Appl. No. 09/756,283; Filed: January 9, 2001  
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Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

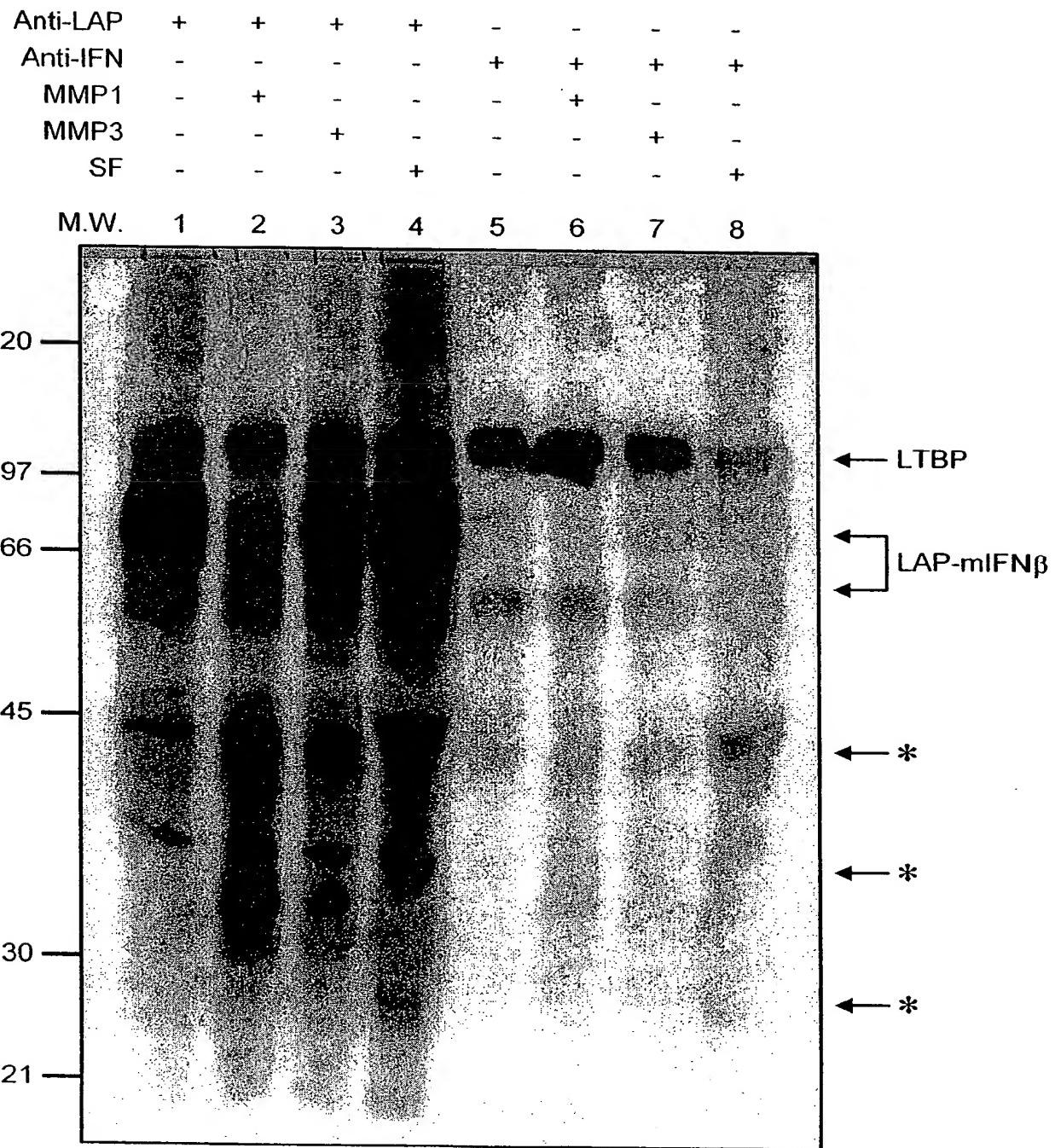


FIG. 8a



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Dkt. No. 0623.100000/LBB/PAJ; Group Art Unit: 1646  
Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

Anti-LAP	+	+	+	+	-	-	-	-
Anti-IFN	-	-	-	-	+	+	+	+
MMP1	-	+	-	-	-	+	-	-
MMP3	-	-	+	-	-	-	+	-
SF	-	-	-	+	-	-	-	+
M.W.	1	2	3	4	5	6	7	8

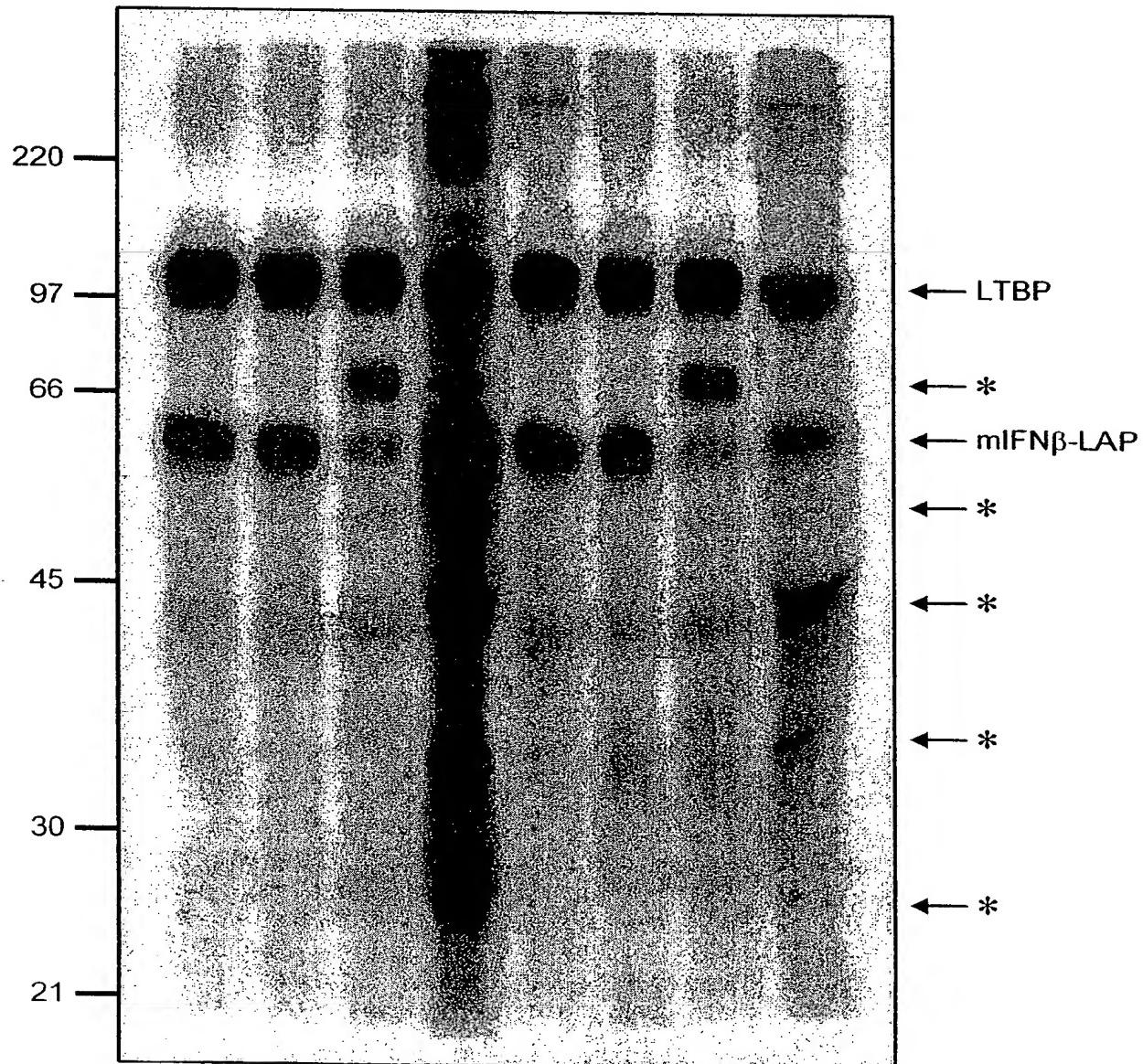


FIG. 8b

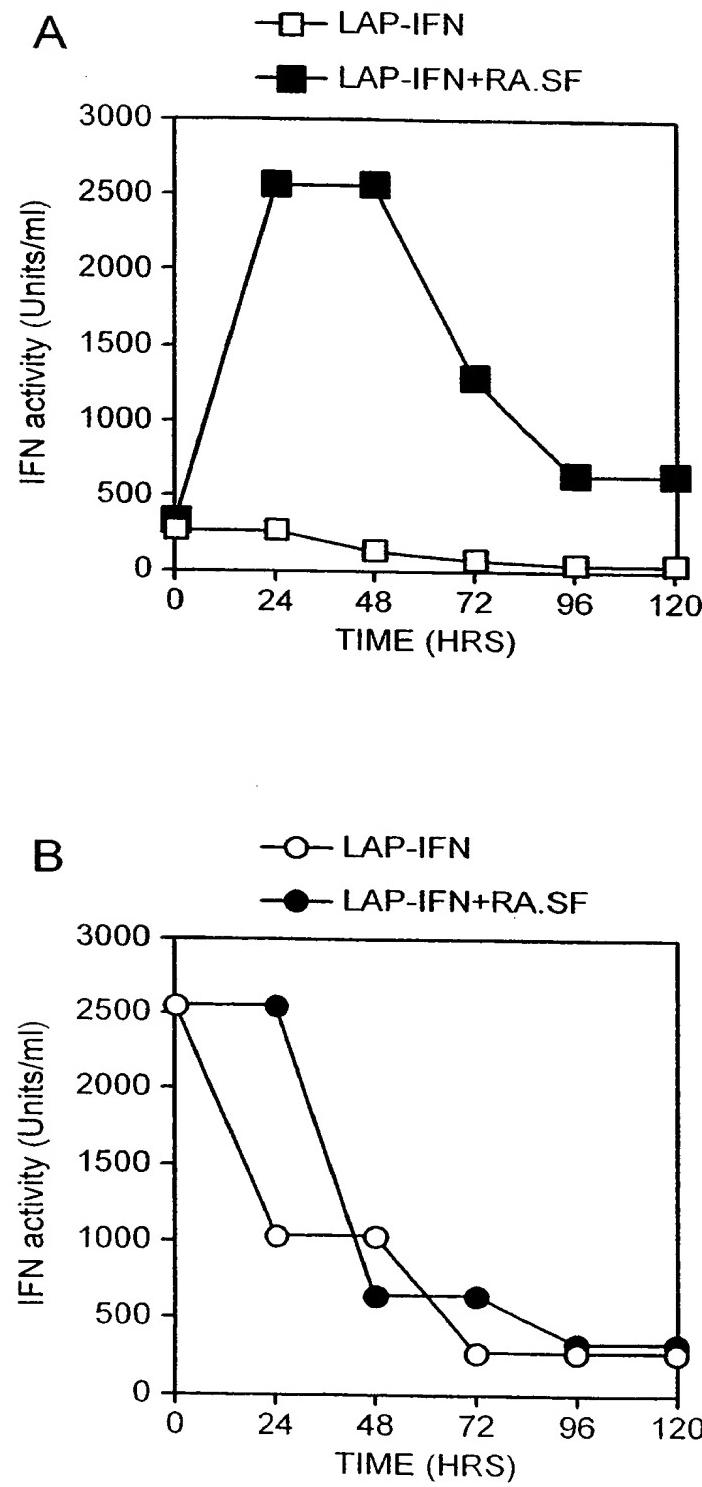


FIG. 9

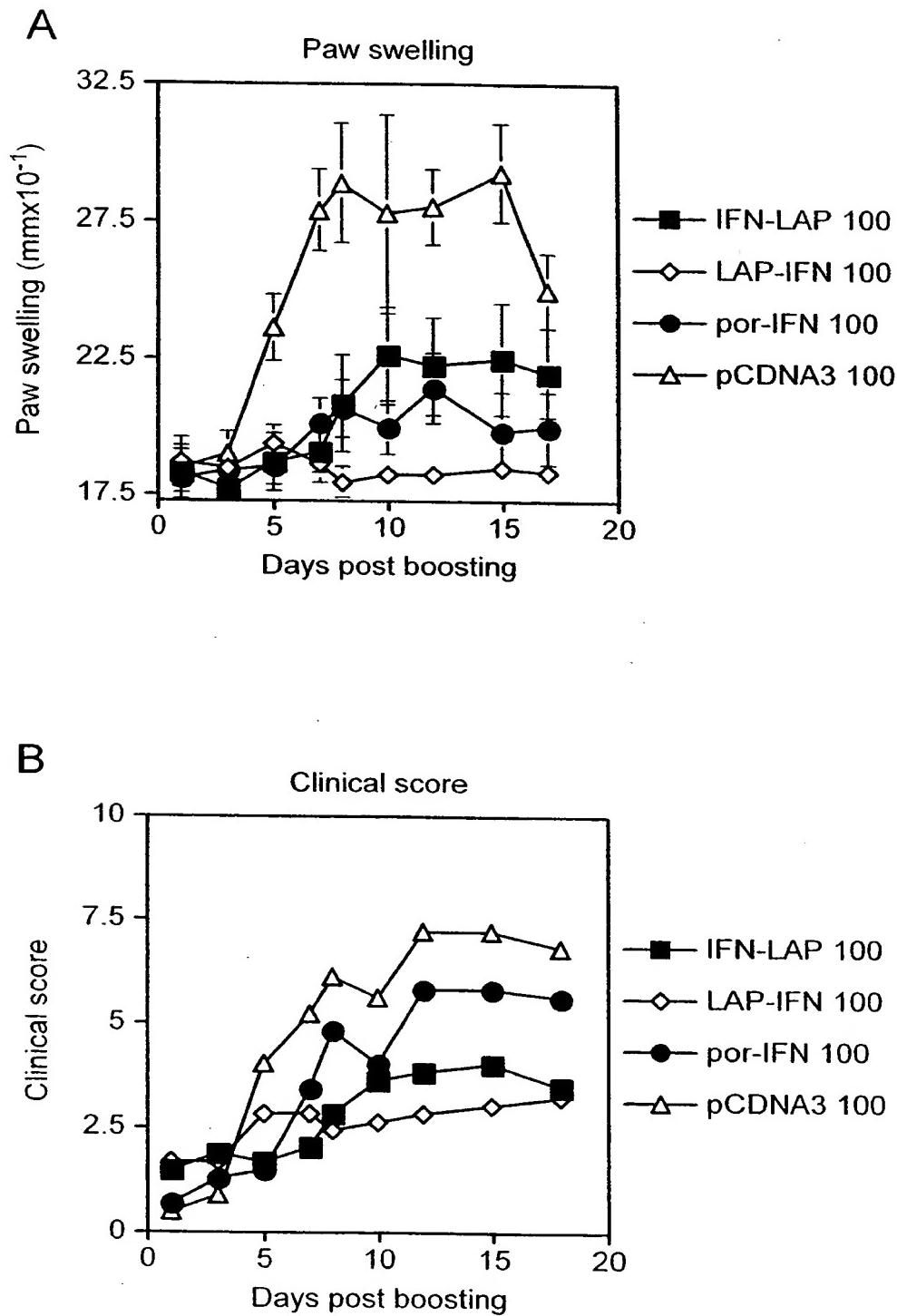


FIG. 10